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 GB 2185613 A EP 0482776 A1 AU 008179494 A

 US 4880137 A US 4322016 A
- (58) Field of Search

 UK CL (Edition O) B8D DCE DCF12 DCF15 DCF17

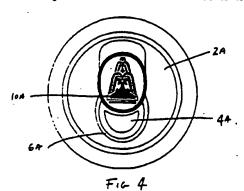
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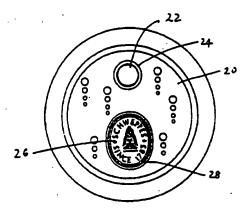
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 Online: WPI

(54) Container closure which carries data

(57) A container such as a drinks can has an opening sealed by a closure 2A which has at least one peripherally weakened zone 4A or 26 and which carries data. One embodiment carries the data on a finger tab 10A which is pivotally secured to the closure and which can rupture the peripherally weakened zone when lifted by a user's finger. The finger tab may have an offset region which is riveted to the closure. The data may be a logo or a trademark. Another embodiment carries the data on a peripherally weakened zone 26 and has a second peripherally weakened zone 22 spaced from the first zone. The user applies external pressure to rupture the smaller zone, which releases pressure within the container. The larger zone can then be ruptured by the user to gain access to the container's contents.





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Fig 1

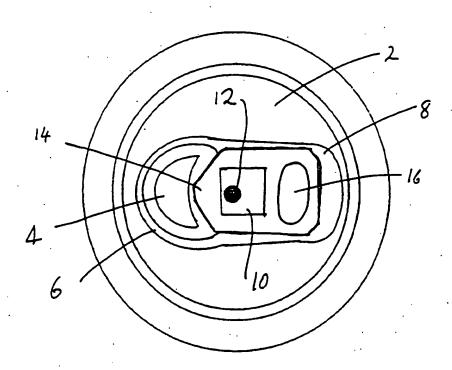
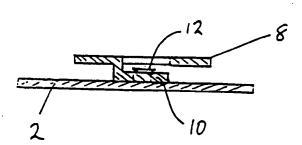
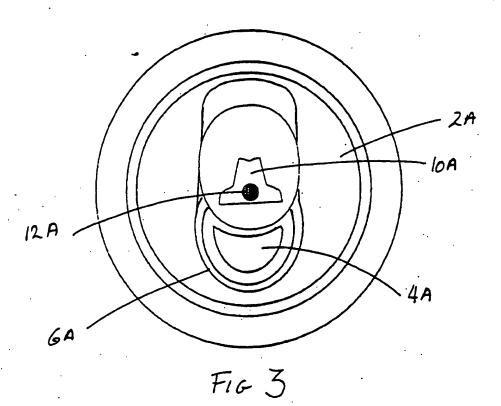
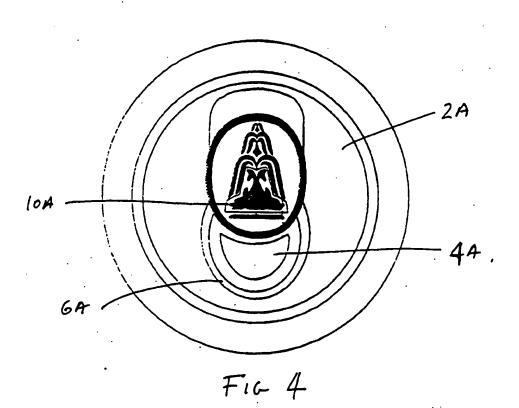
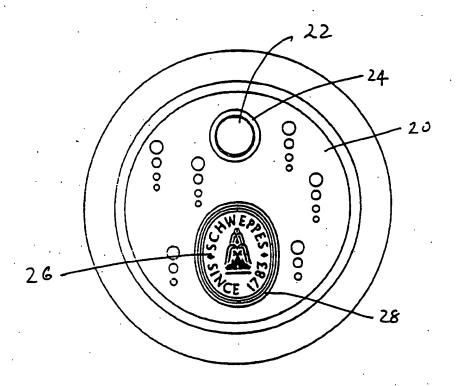


Fig 2









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CONTAINERS

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The present invention relates to containers with closures having rupturable regions.

Soft drink cans with lift-up tabs are well known. Such cans have an end closure with an area surrounded by a weakened peripheral region. A tab is rivetted to the closure so that it can be gripped at one end portion and pivoted about the rivet to force the opposite end portion into engagement with the area to cause a rupture along the peripheral region.

The tab is generally planar but has an inner offset region which is the region in which tab is secured to the closure by the rivet. The said one end of the closure also has a central open area to ease the gripping of the tab and also to stiffen the tab by bending over the periphery of central open area.

It is an object of the invention to provide an improved container.

According to the present invention there is provided a container having an opening sealed by a closure, the closure having an area with a weakened peripheral region capable of being ruptured, a finger tab pivotally secured to the closure and positioned with one end portion to one side of the pivot lying above said area and the other end portion to the opposite side of the pivot being profiled to be operated by the finger of the user to pivot the tab and cause said one end portion to engage said area and rupture the closure along said weakened peripheral region, characterised in that said tab is profiled to act as a data carrier and carries data.

According to the present invention there is also provided a pressurised container having an opening sealed by a closure, the closure having a first relatively large area with a weakened peripheral region and a second relatively small area spaced from said first area also

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with a weakened peripheral region, said second area being rupturable in response to external pressure to release pressure within the container, the first area being more readily rupturable in response to external pressure once the pressure in the container has been released, characterised in that at least one of said areas also act as a carrier for data related to the product within the container.

A container embodying the present invention will now be described, by way of example, with reference to the accompanying diagrammatic drawings, in which:

Figure 1 is plan view of a container having a closure with a rupturable seal;

Figure 2 is a cross-section through the closure of Figure 1;

Figure 3 is a plan view of a closure embodying the invention in which the tab bears no data;

Figure 4 is a plan view of the closure of Figure 3 in which the tab bears data; and

Figure 5 is a plan view of a different form of easy open pressurisable container.

Figure 1 shows the closure 2 of a pressurised soft drinks can. The closure has a generally circular area 4 surrounded by a rupturable peripheral region 6. An elongate tab 8 has a part cut-out offset region 10 secured to the closure 2 by a rivet 12 (see Figure 2). One end portion of the tab 8 has a nose 14 which is arranged to bear against the area 4. The other end portion of the tabs has a central opening 16.

By gripping the end of the tab with the central opening, and lifting it upwards, the tab 8 pivots about the rivet to force the nose 14 into the area 4 and cause a rupture along the peripheral region 6. This provides an opening through which the contents of the container can be discharged.

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In the closure shown in Figure 3, parts similar to those in Figure 1 are similarly referenced but with the suffix A. As can be seen, the opening in the tab has been closed so that the tab has a greater exposed surface area and can act as a data carrier to carry data such as a logo or trade mark (see Figure 4) associated with the contents of the container. In addition, the outer periphery of the tab is enlarged and shaped. As shown in Figures 3 and 4, the shape is oval, but it will be appreciated that it can be egg-shaped, circular, square, rectangular, triangular or even polygonal.

The periphery can be shaped to correspond to the predetermined periphery of the logo which it is to bear.

The offset region 10A also acts as a data carrier and can be shaped to correspond to the shape of a discrete portion of the logo (see Figure 4).

The operation of the tab is similar to that described in Figures 1 and 2.

The exposed surface of the tab preferably has a background of different colour to that of the rest of the closure and carries printed matter of a different colour to that of the background.

As can be appreciated, the tab, with no opening except for the offset region, is provided with a greater surface area than those of existing tabs in order to enable it to act as a data carrier. Also, the profile of the tab is arranged to match the profile of predetermined data for example a logo or mark which it is to bear.

Figure 5 shows another form of easy opening can. The closure 20 of the can has a relatively small area 22 surrounded by a weakened rupturable peripheral region 24. A relatively large area 24, spaced from the area 22, is surrounded by a weakened rupturable peripheral region 28.

In operation, applying external force to the area 22 causes a rupture along the region 24. Once the

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rupture has occurred, pressure within the can is released and so it is now easier to rupture the region 28 by applying force to the area 26.

In the present case, the area 28 also acts as a data carrier to carry data related to the contents of the can. Also, the area is shaped to conform to the data it is carrying. In the present case, the area is oval but, as will be appreciated, it can have different shapes such as the tab disclosed above can have different shapes.

It will also be appreciated that the smaller area 22 can also act as a data carrier.

CLAIMS

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- 1. A container having an opening sealed by a closure, the closure having an area with a weakened peripheral region capable of being ruptured, a finger tab pivotally secured to the closure and positioned with one end portion to one side of the pivot lying above said area and the other end portion to the opposite side of the pivot being profiled to be operated by the finger of the user to pivot the tab and cause said one end portion to engage said area and rupture the closure along said weakened peripheral region, characterised in that said tab is profiled to act as a data carrier and carries data.
- 2. A container according to Claim 1, characterised in that the surface area of the exposed face of the tab is substantially the same as the area bounded by the periphery of the tab.
- 3. A container according to Claim 1, wherein the surface of the tab is continuous except for an offset region, which offset region is secured to the closure by a rivet.
- 4. A container according to Claim 1 or Claim 2, characterised in that said tab is of generally oval configuration having an inner offset region which is secured to the closure by riveting.
- 5. A container according to Claim 4, characterised in that said tab carries a trade mark or logo related to the product within the container.
 - 6. A container according to Claim 5, characterised in that the offset region is profiled to match the shape of a discrete portion of the data.
 - 7. A container according to any preceding claim, characterised in that the data comprises a background of a colour different to that of the closure extending over the whole exposed surface of the tab, and printed matter of a different colour to the background superimposed on the

background.

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- 8. A container according to Claim 1, wherein the tab has a configuration selected from one of the following: egg-shaped, circular, square, rectangular, triangular or polygonal.
- 9. A container according to Claim 1, characterised in that the tab carries a logo having a predetermined outer profile with a discrete inner profile, the tab having an offset region which is shaped to match said discrete inner profile and is secured to the closure by riveting and an outer profile which is shaped to match said predetermined outer profile.
- 10. A pressurised container having an opening sealed by a closure, the closure having a first relatively large area with a weakened peripheral region and a second relatively small area spaced from said first area also with a weakened peripheral region, said second area being rupturable in response to external pressure to release pressure within the container, the first area being more
- readily rupturable in response to external pressure once the pressure in the container has been released, characterised in that at least one of said areas also act as a carrier for data related to the product within the container.
- 25 11. A pressurised container according to Claim 10, characterised in that the first area is oval shaped.
 - 12. A pressurised container according to Claim 10 or Claim 11, characterised in that the first area is of different colour to the remainder of the closure.
- 30 13. A container substantially as hereinbefore described, with reference to Figures 3 and 4.
 - 14. A pressurisable container substantially as hereinbefore described, with reference to Figure 5.





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Claims searched: 1-9

Examiner:

Michael Logan

Date of search:

26 March 1997

Patents Act 1977 Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.O): B8D (DCF12, DCF15, DCF17, DCF20, DCG, DCE); B8F (FBC, FBE)

Int Cl (Ed.6): B65D 17/32 17/34

Other:

Online: WPI

Documents considered to be relevant:

| Category | Identity of document and relevant passage | | Relevant to claims |
|------------|---|--|-----------------------|
| Y | GB 2185613 A | (METAL BOX) see figs and page 2, lines 33-37 | 7,8 |
| х | EP 0482776 A1 | (CMB FOODCAN) see figs 1-3 and column 5, line 47 - column 6, line 14 | 1-5 |
| X,Y | AU 81794/94 A | (NEW ZEALAND CAN) see page 5, lines 1-15 | X:1-5 Y:7.8 |
| x | US 4880137 | (WELLS) see column 9, lines 12-32 | 1-5 |
| x . | US 4322016 | (BARRASH) see column 2, lines 55-61 | 1-5 |
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P Document published on or after the declared priority date but before the filing date of this invention.

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